

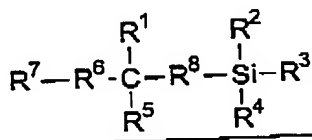
## PATENT

DOCKET NO.: VTN5023  
 Application No.: 10/699,417  
 Office Action Dated: January 10, 2006

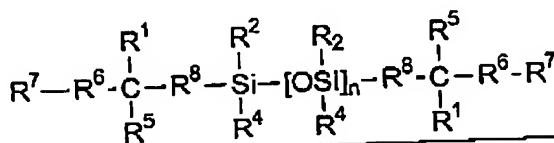
This listing of claims will replace all prior versions, and listings, of claims in the application.

## Listing of Claims:

1. (Currently Amended). A process comprising the steps of contacting at least one silicone containing compound monomer of Formula I or II



I



II

wherein:

n is an integer between 3 and 35;

R<sup>1</sup> is hydrogen, C<sub>1-6</sub>alkyl;

R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, are independently, C<sub>1-6</sub>alkyl, triC<sub>1-6</sub>alkylsiloxy, phenyl, naphthyl, substituted C<sub>1-6</sub>alkyl, substituted phenyl, or substituted naphthyl

where the alkyl substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkoxycarbonyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, amide, halogen, hydroxyl, carboxyl, C<sub>1-6</sub>alkylcarbonyl and formyl, and

where the aromatic substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkoxycarbonyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, amide, halogen, hydroxyl, carboxyl, C<sub>1-6</sub>alkylcarbonyl and formyl;

R<sup>5</sup> is hydroxyl, an alkyl group containing one or more hydroxyl groups; or

(CH<sub>2</sub>(CR<sup>9</sup>R<sup>10</sup>)<sub>x</sub>O)<sub>y</sub>-R<sup>11</sup> wherein y is 1 to 5, preferably 1 to 3, x is an integer of 1 to 100, preferably 2 to 90 and more preferably 10 to 25; R<sup>9</sup> - R<sup>11</sup> are independently

## PATENT

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selected from H, alkyl having up to 10 carbon atoms and alkyls having up to 10 carbon atoms substituted with at least one polar functional group.

R<sup>6</sup> is a divalent group comprising up to 20 carbon atoms;

R<sup>7</sup> is a monovalent group that can under free radical and/or ionic polymerization and comprising up to 20 carbon atoms;

R<sup>8</sup> is a divalent group comprising up to 20 carbon atoms

with a supercritical fluid having a density of between about 0.2 and about 1 g/ml, decreasing said density so that two phases are formed a first phase comprising said at least one silicone containing compound and a second phase comprising at least one impurity and separating said second phase from said first phase.

2. (Original). The process of claim 1 wherein said supercritical fluid is selected from the group consisting of carbon dioxide, ethane, ethylene, propane, propylene, chlorotrifluoromethane and mixtures thereof.

3. (Original). The process of claim 1 wherein the supercritical fluid comprises carbon dioxide.

4. (Original). The process of claim 1 wherein the supercritical fluid has a density of between about 0.4 and about 0.8 g/ml.

5. (Original). The process of claim 1 wherein the contacting step comprises at least two stages a first stage and a second stage wherein the density of said supercritical fluid is lower than the density in the first stage.

6. (Original). The process of claim 5 wherein the density of the supercritical fluid in the first first stage is between about 0.4 and about 0.8 g/ml and the density of the supercritical fluid in the second stage is between about 0.1 g/ml and about 0.4 g/ml.

7. (Original). The process of claim 5 further comprising at least one additional contacting stage.

8. (Original). The process of claim 5 wherein the contacting step comprises at least three stages and the density of the supercritical fluid in the first stage is between about 0.5 and about 0.7 g/ml, the density of the supercritical fluid in the second stage is between about 0.3 g/ml and about 0.5 g/ml and the density of the supercritical fluid in a third stage is between about 0.1 g/ml and about 0.3 g/ml.

## PATENT

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9. (Original). The process of claim 5 wherein the contacting step comprises at least four stages and the density of the supercritical fluid in the first stage is between about 0.5 and about 0.7 g/ml, the density of the supercritical fluid in the second stage is between about 0.3 g/ml and about 0.5 g/ml, the density of the supercritical fluid in a third stage is between about 0.15 g/ml and about 0.35 g/ml and the density of the supercritical fluid in a fourth stage is between about 0.1 g/ml and about 0.3 g/ml.

10. (Original). The process of claim 1 wherein said contacting step is conducted under conditions comprising pressures from about 1,000 psi to about 5,000 psi and temperatures greater than about 31°C.

11. (Original). The process of claim 1 wherein said contacting step is conducted under conditions comprising pressures from about 2,000 psi to about 3,000 psi and temperatures between about 31 and about 80°C.

12. (Canceled).

13. (Currently Amended). The process of claim 12 wherein the silicone containing compound monomer comprises at least one polymerizable group.

14. (Canceled).

15. (Currently Amended). The process of claim 14 wherein R<sup>1</sup> is hydrogen; R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup>, are independently selected from the group consisting of C<sub>1-6</sub>alkyl and triC<sub>1-6</sub>alkylsiloxy;

R<sup>5</sup> is hydroxyl, -CH<sub>2</sub>OH or -CH<sub>2</sub>CHOHCH<sub>2</sub>OH,

R<sup>6</sup> is a divalent C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkyloxy, C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, phenylene, naphthalene, C<sub>1-12</sub>cycloalkyl, C<sub>1-6</sub>alkoxycarbonyl, amide, carboxy, C<sub>1-6</sub>alkylcarbonyl, carbonyl, C<sub>1-6</sub>alkoxy, substituted C<sub>1-6</sub>alkyl, substituted C<sub>1-6</sub>alkyloxy, substituted C<sub>1-6</sub>alkyloxyC<sub>1-6</sub>alkyl, substituted phenylene, substituted naphthalene, substituted C<sub>1-12</sub>cycloalkyl, where the substituents are selected from one or more members of the group consisting of C<sub>1-6</sub>alkoxycarbonyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkoxy, amide, halogen, hydroxyl, carboxyl, C<sub>1-6</sub>alkylcarbonyl and formyl;

R<sup>7</sup> comprises a free radical reactive group selected from the group consisting of acrylate, styryl, vinyl, vinyl ether, itaconate group, C<sub>1-6</sub>alkylacrylate, acrylamide, C<sub>1-6</sub>alkylacrylamide, N-vinylactam, N-vinylamide, C<sub>2-12</sub>alkenyl, C<sub>2-12</sub>alkenylphenyl, C<sub>2-12</sub>alkenylnaphthyl and C<sub>2-6</sub>alkenylphenylC<sub>1-6</sub>alkyl;

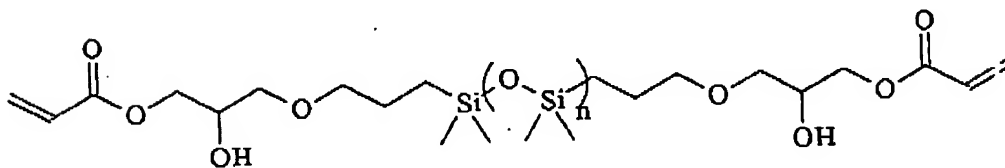
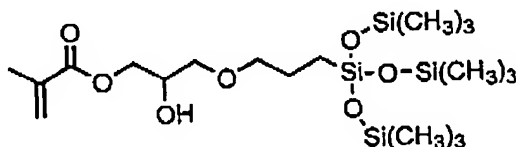
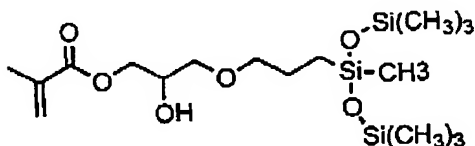
Page 4 of 9

## PATENT

DOCKET NO.: VTN5023  
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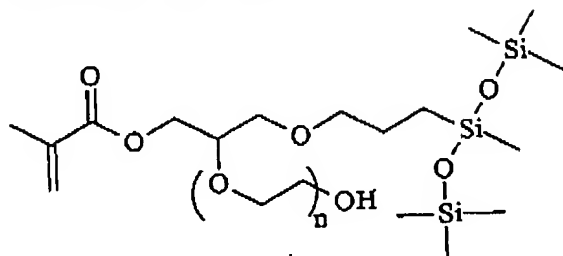
$R^8$  is selected from the group consisting of divalent  $C_{1-6}$ alkyl,  $C_{1-6}$ alkyloxy,  $C_{1-6}$ alkyloxy $C_{1-6}$ alkyl, phenylene, naphthalene,  $C_{1-12}$ cycloalkyl,  $C_{1-6}$ alkoxycarbonyl, amide, carboxy,  $C_{1-6}$ alkylcarbonyl, carbonyl,  $C_{1-6}$ alkoxy, substituted  $C_{1-6}$ alkyl, substituted  $C_{1-6}$ alkyloxy, substituted  $C_{1-6}$ alkyloxy $C_{1-6}$ alkyl, substituted phenylene, substituted naphthalene, substituted  $C_{1-12}$ cycloalkyl, where the substituents are selected from one or more members of the group consisting of  $C_{1-6}$ alkoxycarbonyl,  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, amide, halogen, hydroxyl, carboxyl,  $C_{1-6}$ alkylcarbonyl and formyl.

17. (Currently Amended). The process of claim 15 wherein the silicone containing compound monomer is selected from the group consisting of

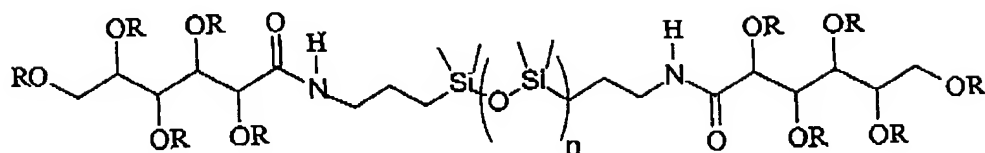


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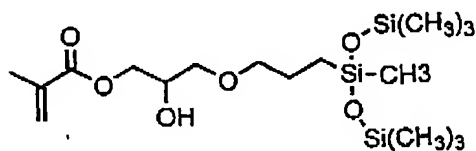


and



where  $n = 1-50$  and R is independently selected from H and polymerizable unsaturated group, with at least one R is a polymerizable group, and at least one R is H.

18. (Currently Amended). The process of claim 15 wherein said silicone containing ~~compound~~ monomer comprises



19. (Canceled).

20. (Canceled).

21. (New). A process comprising the steps of contacting at least one silicone containing acrylic star copolymer or macromer with a supercritical fluid having a density of between about 0.2 and about 1 g/ml, decreasing said density so that two phases are formed a first phase comprising said at least one silicone containing compound and a second phase comprising at least one impurity and separating said second phase from said first phase.

Page 6 of 9